STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES  DIVISION OF OIL, GAS AND MINING							FORI	_	
APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER  NBU 920-29H			
2. TYPE OF WORK  DRILL NEW WELL	REENTER P8	A WELL DEEPE	N WELL	-@			3. FIELD OR WILDO	AT NATURAL BUTTES	
<b>4. TYPE OF WELL</b> Gas We	ell Coalb	ed Methane Well: NO					5. UNIT or COMMUI	NITIZATION AGREINATURAL BUTTES	EMENT NAME
6. NAME OF OPERATOR KERR	-MCGEE OIL & G	SAS ONSHORE, L.P.					7. OPERATOR PHON	<b>1E</b> 720 929-6587	
<b>8. ADDRESS OF OPERATOR</b> P.O	. Box 173779, D	enver, CO, 80217					9. OPERATOR E-MA mary.me	<b>IL</b> ondragon@anadarko	.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		11. MINERAL OWNE			2		12. SURFACE OWN		aa
UTU-0458  13. NAME OF SURFACE OWNER (if box 12	= 'fee')	FEDERAL INC	DIAN (	STATE (		FEE (	FEDERAL INI	DIAN ( STATE (	~ ~
15. ADDRESS OF SURFACE OWNER (if box							16. SURFACE OWNE		
·		18. INTEND TO COM	AMTNO	I E DRODUCT	TON		19. SLANT	(	,
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')  Ute		MULTIPLE FORMAT	IONS				_	_	<u>_</u>
				gling Applicat					ORIZONTAL (
20. LOCATION OF WELL		OTAGES	_	FR-QTR		SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE		NL 825 FEL		SENE		29	9.0 S	20.0 E	S
Top of Uppermost Producing Zone		NL 825 FEL		SENE		29	9.0 S 20.0 E		S
At Total Depth	2233 F	NL 825 FEL	<u> </u>	SENE		29	9.0 S 20.0 E		S
21. COUNTY  UINTAH		22. DISTANCE TO N	8	25			23. NUMBER OF AC	240	JNIT
		25. DISTANCE TO N (Applied For Drilling	g or Co		AME	POOL	26. PROPOSED DEPTH  MD: 10550 TVD:		
27. ELEVATION - GROUND LEVEL 4789		28. BOND NUMBER	WYB0	000291	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICA Permit #43-8496			F APPLICABLE	
		A	TTACH	IMENTS					
VERIFY THE FOLLOWING	ARE ATTACH	ED IN ACCORCAN	CE WI	TH THE UT	ган (	OIL AND G	AS CONSERVATION	ON GENERAL RU	LES
WELL PLAT OR MAP PREPARED BY	LICENSED SUR	VEYOR OR ENGINEE	R	COMPLETE DRILLING PLAN					
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER				
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				<b>№</b> торо	GRAI	PHICAL MAP			
NAME Kevin McIntyre TITLE Regulatory Analyst I			I			PHONE 720	929-6226		
SIGNATURE DATE 11/25/2008						EMAIL Kev	in.McIntyre@anadark	o.com	
<b>API NUMBER ASSIGNED</b> 43047501900000	АР	PROVAL				Permi	t Manager		
Pen					1 (11111	nit ivianager			

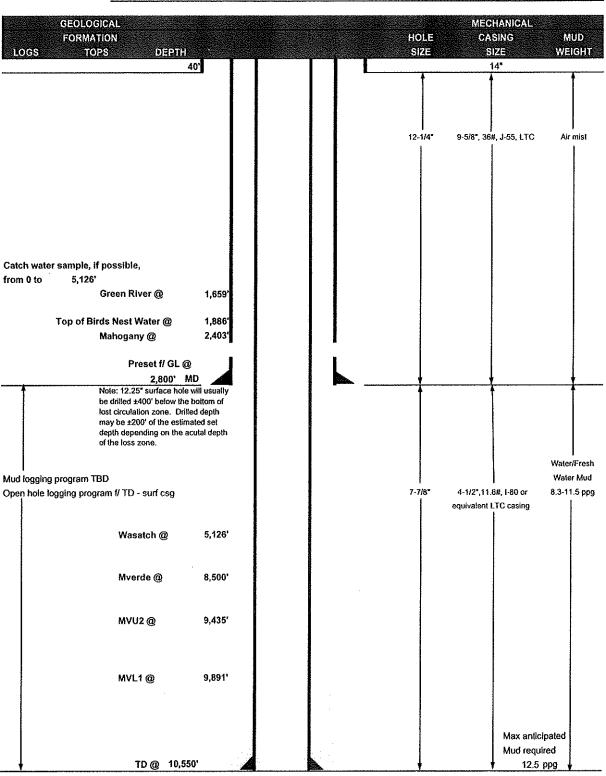
	Proposed Hole, Casing, and Cement							
String	Hole Size	<b>Casing Size</b>	Top (MD)	Bottom (MD)				
Surf	12.25	9.625	0	2800				
Pipe	Grade	Length	Weight					
	Grade J-55 LT&C	2800	36.0					
	Cement Interval	Top (MD)	Bottom (MD)					
		0	2800					
		<b>Cement Description</b>	Class	Sacks	Yield	Weight		
			Premium Foamed Cement	315	1.18	15.6		

	Proposed Hole, Casing, and Cement								
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)					
Prod	7.875	4.5	0	10550					
Pipe	Grade	Length	Weight						
	Grade I-80 LT&C	10550	11.6						
	<b>Cement Interval</b>	Top (MD)	Bottom (MD)						
		0	10550						
		<b>Cement Description</b>	Class	Sacks	Yield	Weight			
			Premium Lite High Strength	500	3.38	11.0			
			Pozzuolanic Cement	1660	1.31	14.3			



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

KERR-McGEE OIL & GAS ONSHORE LP DATE October 15, 2008 COMPANY NAME NBU 920-29H 10,550' MD/TVD WELL NAME TD FIELD **Natural Buttes** COUNTY Uintah STATE Ulah **ELEVATION** 4,789' GL KB 4,804' SURFACE LOCATION SENE 2233' FNL & 825' FEL, Sec. 29, T 9S R 20E Straight Hole 40.007580 NAD 27 Latitude: Longitude: -109.683410 **OBJECTIVE ZONE(S)** Mesaverde Regulatory Agencies: BLM (MINERALS), BIA (SURFACE), UDOGM, Tri-County Health Dept. ADDITIONAL INFO



#### DRILLING PROGRAM

#### **CASING PROGRAM**

						D	ESIGN FACT	ORS
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						· · · · · · · · · · · · · · · · · · ·
			235			3520	2020	453000
SURFACE	9-5/8*	0 to 2,800'	36.00	J-55	LTC	0.78	1.54	5.13
			37-59-1/25			7780	6350	201000
PRODUCTION	4-1/2"	0 to 10550	11.60	1-80	LTC	1.71	0.93	1.88

<sup>1)</sup> Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

(Burst Assumptions: TD =

12.5 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP

4220 psi

#### CEMENT PROGRAM

					3.3-54		SUFIN S
		FT. OF FILL	DESCRIPTION		EXCESS	Activities a secure - service and	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt	100		15.60	1.18
		59.3 (3.0)	+ 2% CaCl + .25 pps flocele	100000000000000000000000000000000000000			
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surfac	e, option 2	will be uti	lized	
Option 2	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite	230	35%	11.00	3.82
-			+:25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as reg.		15.60	1.18
		8833					
PRODUCTIO	N LEAD	4,620'	Premium Lite II + 3% KCl + 0.25 pps	500	60%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender		·		
	TAIL	5,930'	50/50 Poz/G + 10% salt + 2% gel	1660	60%	14.30	1.31
			+.1%R-3				

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

### FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.					
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tait cement with bow spring centralizers.					

#### ADDITIONAL INFORMATION

	BOPE: 11" 5M with one ann	dar and 2 rams. Test to 5,000 psi (annular to 2,5	00 psi) prior to drilling out. Record on chart recorder &			
	tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper					
	& lower kelly valves.					
	Drop Totco surveys every 20	2000'. Maximum atlowable hole angle is 5 degrees.				
	Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utilized.					
ILLING ENGIN	ENGINEER:	•	DATE:			
		Brad Laney				
ILLING SUPERINTENDENT:	SUPERINTENDENT:		DATE:			
	Randy Bayne					

<sup>2)</sup> MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

# NBU 920-29H SENE Sec. 29, T9S,R20E UINTAH COUNTY, UTAH UTU-0458

## **ONSHORE ORDER NO. 1**

## DRILLING PROGRAM

# 1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1659'
Bird's Nest	1886'
Mahogany	2403'
Wasatch	5126'
Mesaverde	8500'
MVU2	9435'
MVL1	9891'
TD	10,550°

# 2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>
	Green River	1659'
	Bird's Nest	1886'
	Mahogany	2403
Gas	Wasatch	5126'
Gas	Mesaverde	8500'
Gas	MVU2	9435
Gas	MVL1	9891'
Water	N/A	
Other Minerals	N/A	

## 3. Pressure Control Equipment (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

# 4. **Proposed Casing & Cementing Program:**

Please see the Natural Buttes Unit SOP. See attached drilling diagram.

## 5. Drilling Fluids Program:

Please see the Natural Buttes Unit SOP.

#### 6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

#### 7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,550' TD, approximately equals 6541 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4220psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

# 9. <u>Variances:</u>

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

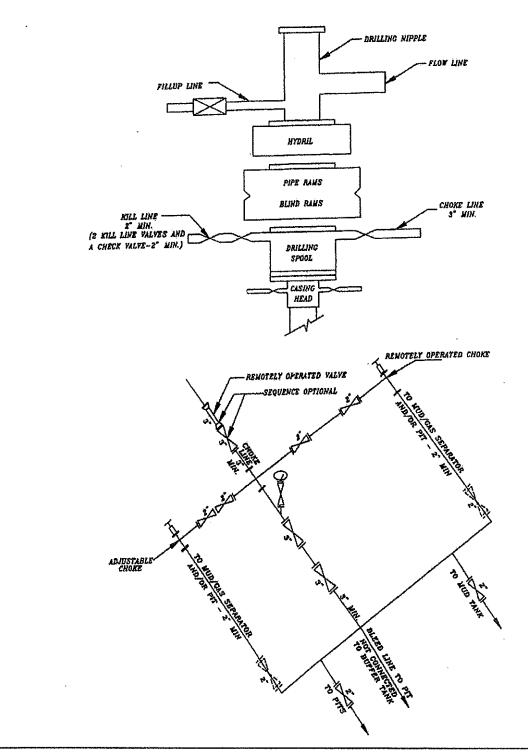
#### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

# 10. Other Information:

Please see Natural Buttes Unit SOP.

# **EXHIBIT A**



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

# NBU 920-29H SENE Sec. 29 ,T9S,R20E UINTAH COUNTY, UTAH UTU-0458

#### ONSHORE ORDER NO. 1

### **MULTI-POINT SURFACE USE & OPERATIONS PLAN**

# 1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

#### 2. Planned Access Roads:

Approximately 1,329' +/- of new access road is proposed. Refer to Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

#### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

#### 4. Location of Existing & Proposed Facilities:

Please see the Natural Buttes Unit SOP.

Refer to Topo Map D for the location of the proposed pipelines.

A right-of-way is required for the pipeline. The pipeline is approximately 1,534' in length and 30' in width. A 4" surface steel pipeline will be constructed utilizing existing disturbance where possible. The pipeline will be butt-welded together and pulled into place with a rubber tired tractor.

### Variances to Best Management Practices (BMPs) Requested:

Approximately 1,534' of 4" steel pipeline will be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

#### 5. Location and Type of Water Supply:

Please see the Natural Buttes SOP.

### 6. Source of Construction Materials:

Please see the Natural Buttes SOP.

# 7. <u>Methods of Handling Waste Materials</u>:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (Request is in lieu of filing Form 3160-5, after initial production).

### 8. Ancillary Facilities:

Please see the Natural Buttes SOP.

## 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

#### 10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

Operator shall call the BIA for the seed mixture when final reclamation occurs.

#### 11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe P.O. Box 70 Fort Duchesne, Utah 84026 (435) 722-5141

The mineral ownership is listed below:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

# 12. <u>Stipulations/Notices/Mitigation:</u>

There are no stipulations or notices for this location.

### 13. Other Information:

A Class III archaeological survey and a paleontological survey have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

#### 14. Lessee's or Operator's Representative & Certification:

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6226 Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

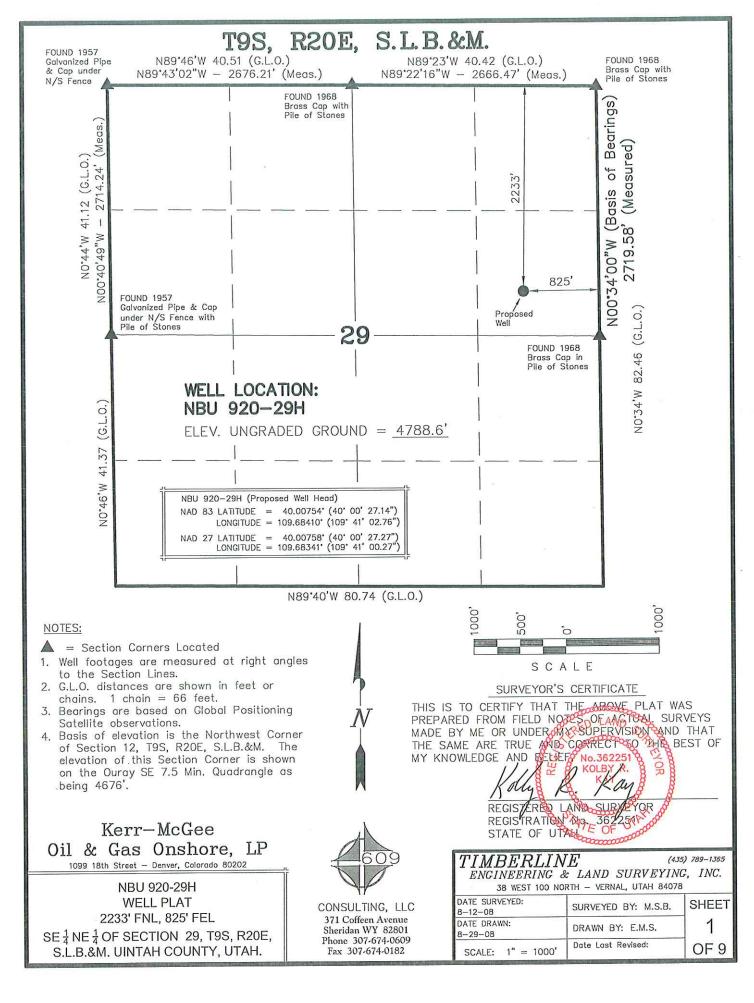
The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

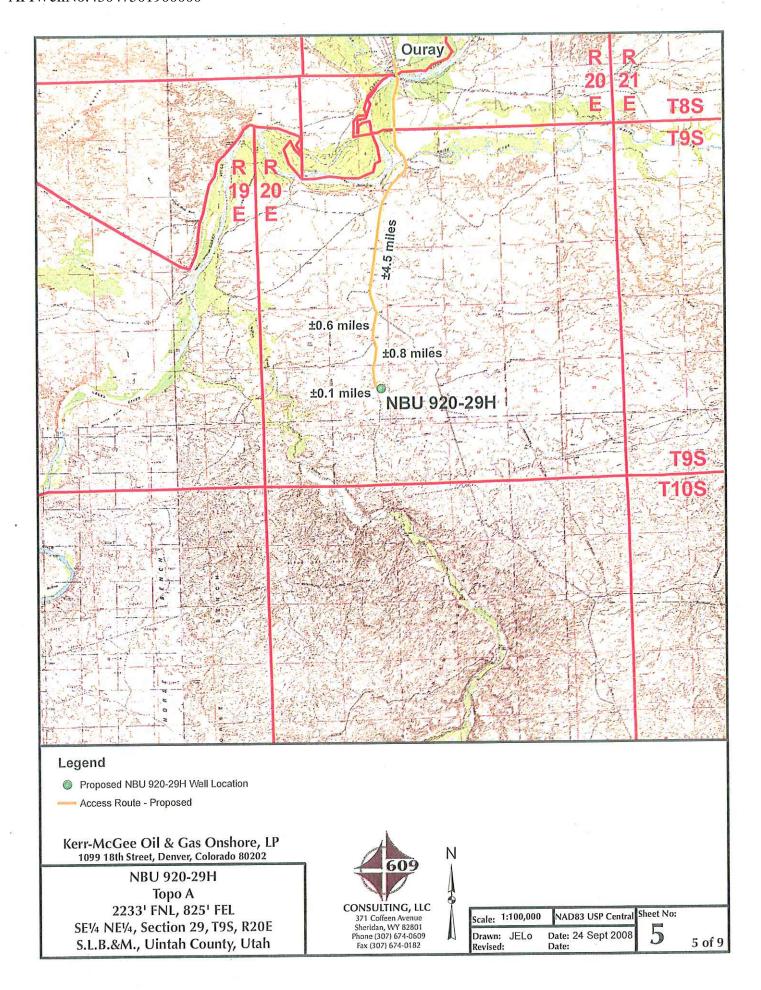
Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond #WYB000291.

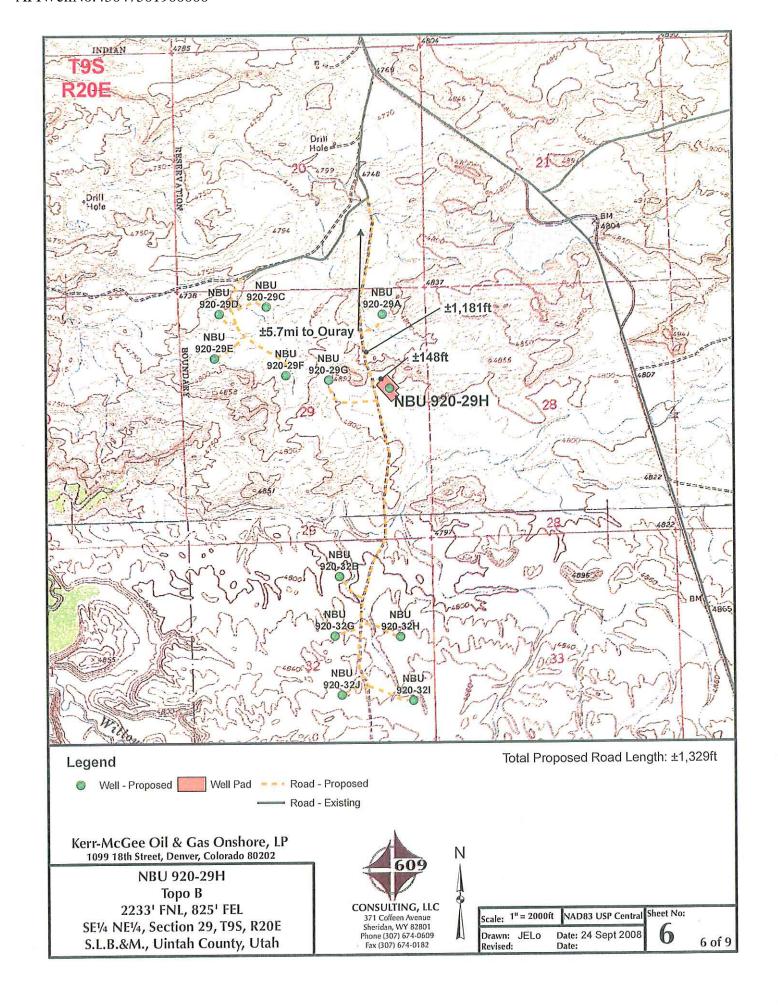
I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

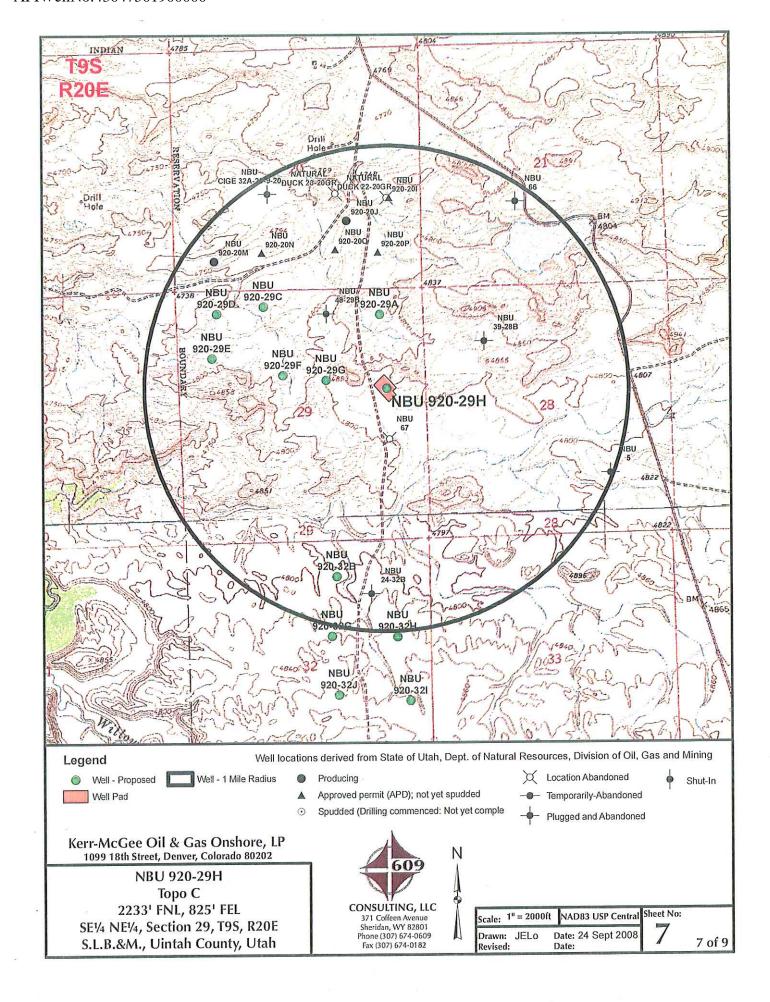
 Kevin McIntyre
 10/15/2008

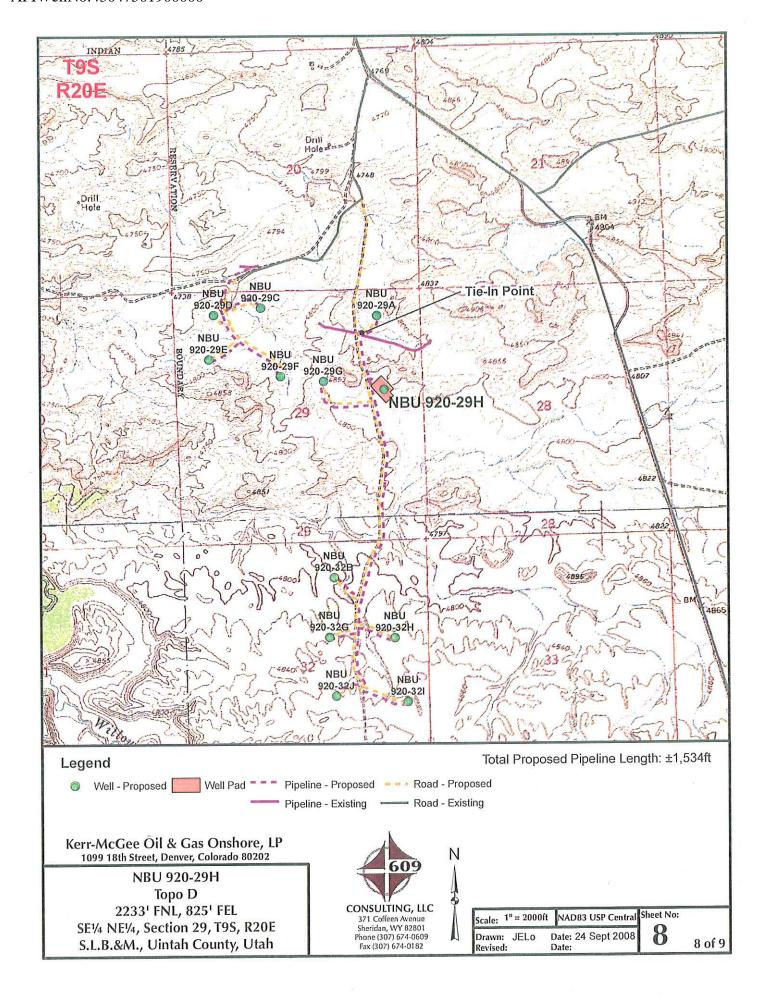
 Date







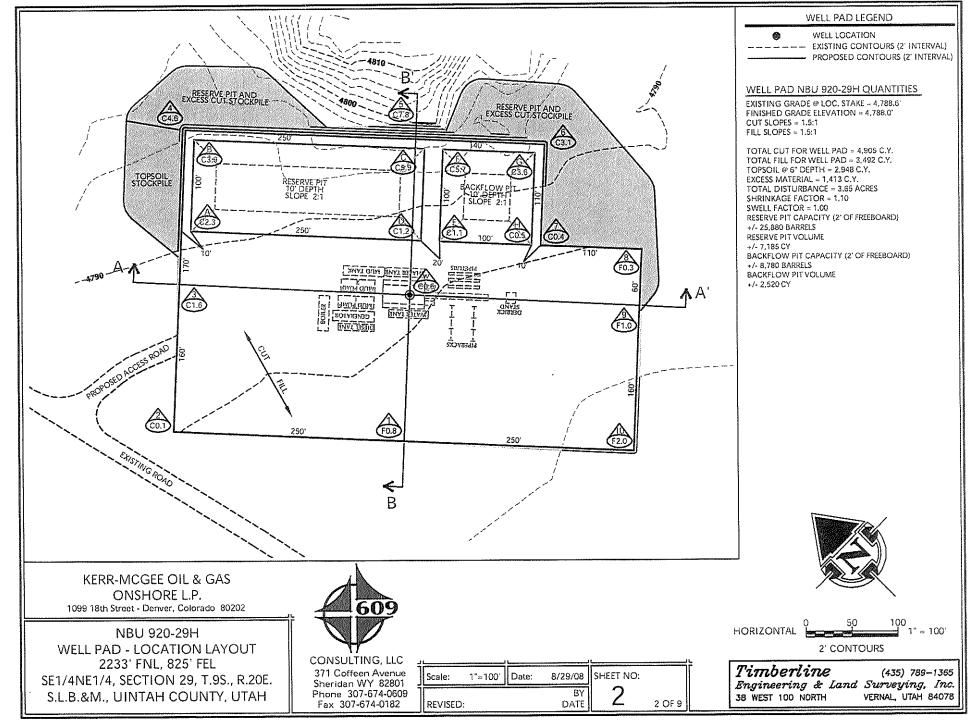


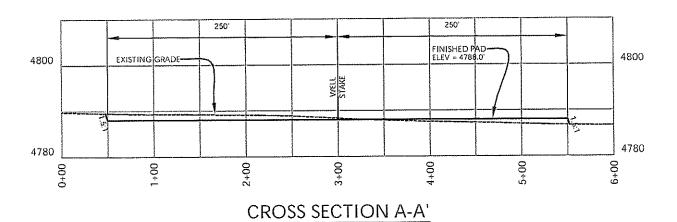


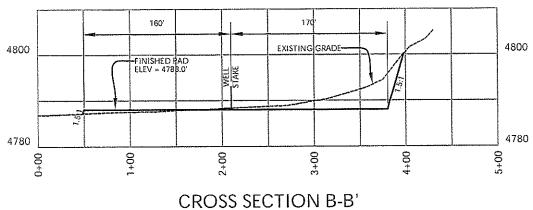
# Kerr-McGee Oil & Gas Onshore, LP NBU 920-29H Section 29, T9S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 4.5 MILES TO THE INTERSECTION OF THE WILD HORSE BENCH ROAD (A CLASS D COUNTY ROAD). EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG THE WILD HORSE BENCH ROAD APPROXIMATELY 0.6 MILES TO THE INTERSECTION OF THE WILLOW CREEK ROAD (A CLASS D COUNTY ROAD). EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG THE WILLOW CREEK ROAD APPROXIMATELY 0.8 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN AN EASTERLY DIRECTION APPROXIMATELY 130 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 36.6 MILES IN A SOUTHERLY DIRECTION.







KERR-MCGEE OIL & GAS ONSHORE L.P.

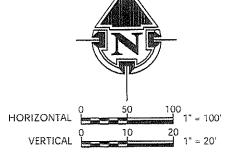
1099 18th Street - Denver, Colorado 80202

NBU 920-29H
WELL PAD - CROSS SECTIONS
2233' FNL, 825' FEL
SE1/4NE1/4, SECTION 29, T.9S., R.20E.
S.L.B.&M., UINTAH COUNTY, UTAH



371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

าี	Scale:	1"∝100'	Date:	8/29/08	SHEET NO:		Ī
1	REVISED:			BY DATE	3	3 OF 9	



Timberline (435) 789-1365 Engineering & Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078

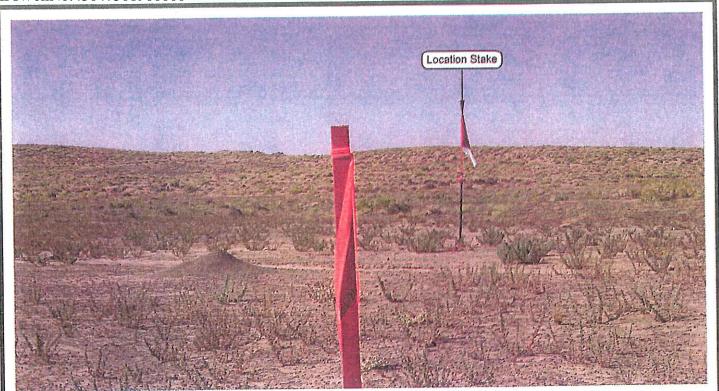


PHOTO VIEW: TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY

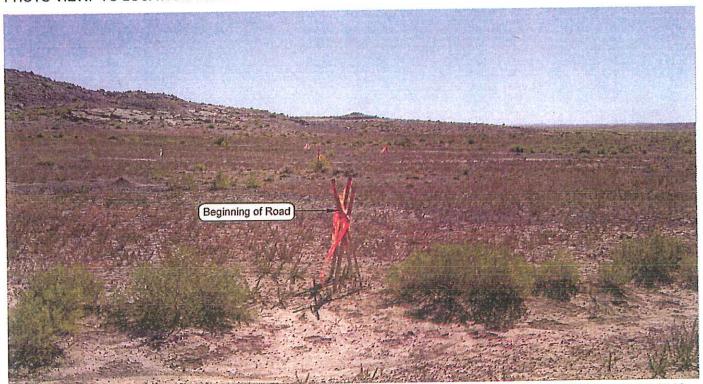


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: EASTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

NBU 920-29H 2233' FNL, 825' FEL SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  OF SECTION 29, T9S, R20E, S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

LOCATION	PHOTOS
TICALTYPATA	A AAG AGA

**DATE TAKEN: 08-12-08 DATE DRAWN: 08-29-08** 

TAKEN BY: M.S.B.

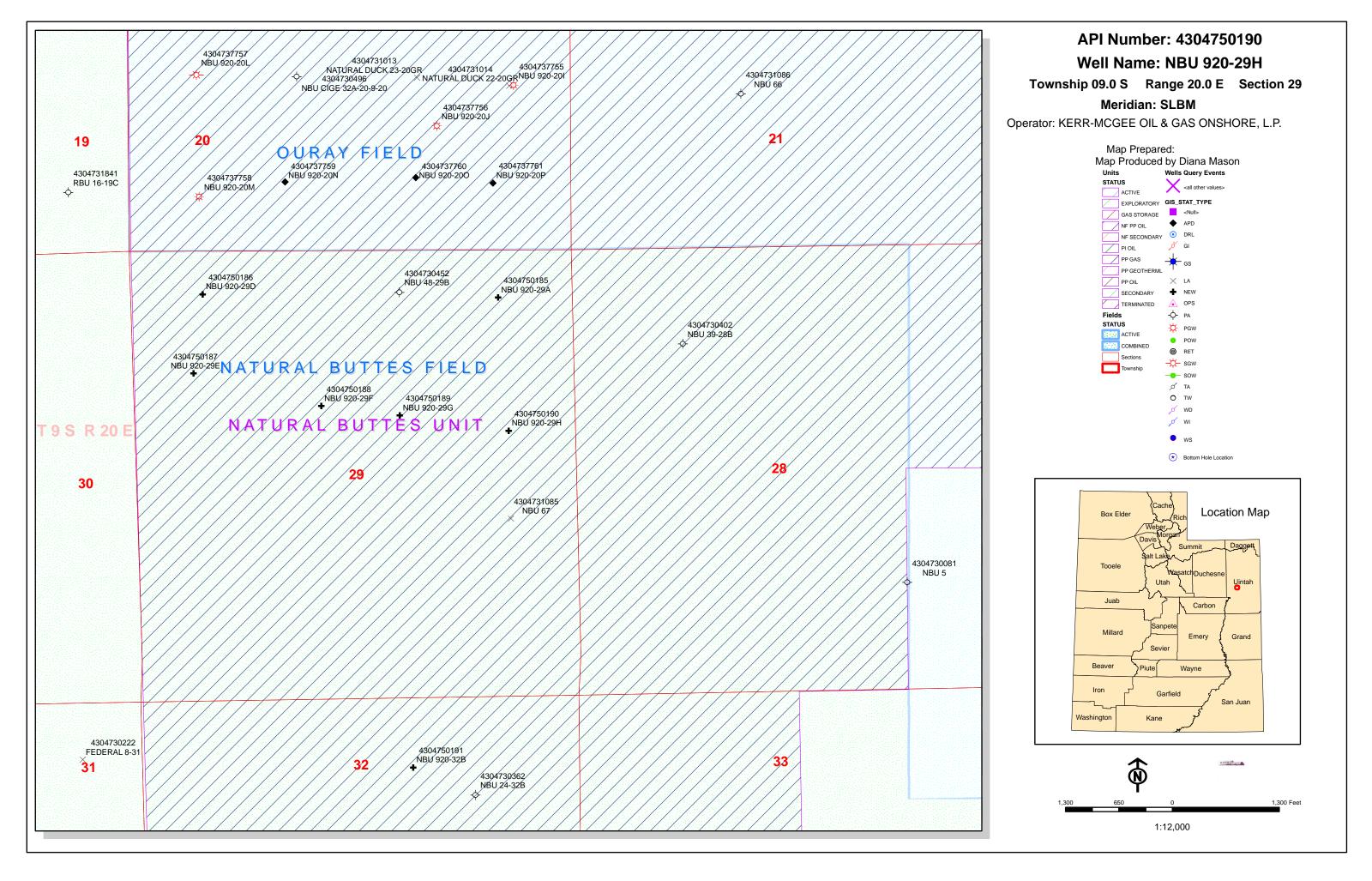
DRAWN BY: E.M.S.

REVISED:

Timberline

(435) 789-1365 Engineering & Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078

SHEET OF 9



# **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

October 17, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESAVERDE)

43-047-50187 NBU 920-29E Sec 29 T09S R20E 1515 FNL 0720 FWL 43-047-50188 NBU 920-29F Sec 29 T09S R20E 1917 FNL 2263 FWL 43-047-50189 NBU 920-29G Sec 29 T09S R20E 2036 FNL 2145 FEL 43-047-50190 NBU 920-29H Sec 29 T09S R20E 2233 FNL 0825 FEL 43-047-50191 NBU 920-32B Sec 32 T09S R20E 2233 FNL 2049 FEL 43-047-50192 NBU 920-32G Sec 32 T09S R20E 2152 FNL 2175 FEL 43-047-50193 NBU 920-32J Sec 32 T09S R20E 2046 FSL 2050 FEL 43-047-50194 NBU 920-32I Sec 32 T09S R20E 2046 FSL 2050 FEL 43-047-50195 NBU 920-32H Sec 32 T09S R20E 1861 FSL 0488 FEL 43-047-50195 NBU 920-32H Sec 32 T09S R20E 2195 FNL 0742 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

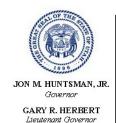
bcc: File – Natural Buttes Unit Division of Oil Gas and Mining

> Central Files Agr. Sec. Chron Fluid Chron

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED:	10/15/2008	API NO. ASSIGNED:	43047501900000
	NBU 920-29H		
OPERATOR:	KERR-MCGEE OIL & GAS ONS	HORE, L.P. (N2995) <b>PHONE NUMBER:</b>	720 929-6226
CONTACT:	Kevin McIntyre		
PROPOSED LOCATION:	SENE 29 090S 200E	Permit Tech Review:	
SURFACE:	2233 FNL 0825 FEL	Engineering Review:	
воттом:	2233 FNL 0825 FEL	Geology Review:	<u>                                      </u>
COUNTY:	UINTAH		
LATITUDE:	40.00748	LONGITUDE:	-109.68332
UTM SURF EASTINGS:	612383.00	NORTHINGS:	4429207.00
FIELD NAME:	NATURAL BUTTES		
LEASE TYPE:	1 - Federal		
LEASE NUMBER:	UTU-0458	PROPOSED FORMATION:	MVRD
SURFACE OWNER:	2 - Indian	COALBED METHANE:	NO
RECEIVED AND/OR REVI	EWED:	LOCATION AND SITING:	
<u>r</u> ∕ PLAT		R649-2-3.	
<b>▶</b> Bond: FEDERAL - WYE	3000291	Unit: NATURAL BUTTES	
Potash		R649-3-2. General	
<b>✓</b> Oil Shale 190-5			
Oil Shale 190-3		R649-3-3. Exception	
Oil Shale 190-13		✓ Drilling Unit	
<b>✓ Water Permit:</b> Permit	t #43-8496	<b>Board Cause No:</b> Cause 173-14	
RDCC Review:		Effective Date: 12/2/1999	
Fee Surface Agreem	ent	Siting: 460' fr u bdry & uncomm. tract	
Intent to Commingle	е	R649-3-11. Directional Drill	
Comments: Presite 0	Completed		
Stipulations: 4 - Fed 17 - Oil	leral Approval - dmason I Shale 190-5(b) - dmason		

API Well No: 43047501900000



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

# Permit To Drill

\*\*\*\*\*\*

**Well Name:** NBU 920-29H **API Well Number:** 43047501900000

**Lease Number:** UTU-0458 **Surface Owner:** INDIAN **Approval Date:** 11/25/2008

#### **Issued to:**

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

#### **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

#### **Notification Requirements:**

Notify the Division with 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

API Well No: 43047501900000

# **Reporting Requirements:**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

**Approved By:** 

Gil Hunt

Associate Director, Oil & Gas

Til Hut

STATE OF UTAH			FORM 9				
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0458						
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute						
	sals to drill new wells, significantly deepen ugged wells, or to drill horizontal laterals. U		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES				
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 920-29H				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047501900000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2233 FNL 0825 FEL		COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SENE Section: 29	rp, range, meridian: Township: 09.0S Range: 20.0E Meridian: S	3	STATE: UTAH				
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA							
TYPE OF SUBMISSION		TYPE OF ACTION					
	ACIDIZE	ALTER CASING	CASING REPAIR				
✓ NOTICE OF INTENT Approximate date work will start: 11/23/2009	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION				
	☐ PRODUCTION START OR RESUME	☐ PLUG AND ABANDON ☐ RECLAMATION OF WELL SITE	☐ PLUG BACK ☐ RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
Date of Spau.	UBING REPAIR	VENT OR FLARE	WATER DISPOSAL				
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION				
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:				
12 DESCRIPE PROPOSED OR CO			'				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  Approved by the Utah Division of Oil, Gas and Mining							
		D	<b>ate:</b> November 23, 2009				
			00 cal 100				
		В	A: Droppelly Co				
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst					
SIGNATURE N/A		<b>DATE</b> 11/18/2009					



# The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047501900000

**API:** 43047501900000 **Well Name:** NBU 920-29H

Location: 2233 FNL 0825 FEL QTR SENE SEC 29 TWNP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 11/25/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated?   Yes No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?</li> <li>Yes</li> <li>No</li> </ul>
<ul> <li>Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?</li> <li>Yes</li> <li>No</li> </ul>
• Has the approved source of water for drilling changed? 🔘 Yes 📵 No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   • Yes   • No Utah Division of Oil. Gas and Mining

**Signature:** Danielle Piernot **Date:** 11/18/2009

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORDALE: November 23, 2009

Bv:

# United States Department of the Interior



#### BUREAU OF LAND MANAGEMENT

Green River District-Vernal Field Office 170 South 500 East Vernal, UT 84078 (435) 781-4400 Fax: (435) 781-4410 http://www.blm.gov/ut/st/en/fo/vernal.html



OCT 2 8 2010

IN REPLY REFER TO: 3160 (UTG011)

Julie Jacobson Kerr McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779

43 047 50190

Re:

Request to Return APD Well No. NBU 920-29H SENE, Sec. 29, T9S, R20E Uintah County, Utah Lease No. UTU-458 Natural Buttes Unit

Dear Ms. Jacobson:

The Application for Permit to Drill (APD) for the above referenced well received in this office on October 29, 2008, is being returned unapproved per your request to this office in an email message received on September 30, 2010. If you intend to drill at this location at a future date, a new APD must be submitted.

If you have any questions regarding APD processing, please contact Cindy Severson at (435) 781-4455.

Sincerely,

James H. Sparger

Acting Assistant Field Manager Lands & Mineral Resources

**Enclosures** 

CC:

**UDOGM** 

RECEIVED
NOV 0 3 2010

DIV. OF OIL, GAS & MINING

	FORM 9						
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0458						
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute						
	sals to drill new wells, significantly deepen e agged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES				
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43047501900000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	<b>PHON</b> Street, Suite 600, Denver, CO, 80217 3779	<b>E NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2233 FNL 0825 FEL			COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: Township: 09.0S Range: 20.0E Meridian: S		STATE: UTAH				
11.  CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA							
TYPE OF SUBMISSION	TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME				
11/25/2010	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE				
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION				
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK				
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL				
DRILLING REPORT	□ WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION				
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:				
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  Oil, Gas and Mining							
		D	ate: 11/23/2010				
		_	L occurre				
		В	A: Door Alex				
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE Description					
Danielle Piernot	720 929-6156	Regulatory Analyst					
SIGNATURE N/A		<b>DATE</b> 11/22/2010					



# The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

# Request for Permit Extension Validation Well Number 43047501900000

**API:** 43047501900000 **Well Name:** NBU 920-29H

Location: 2233 FNL 0825 FEL QTR SENE SEC 29 TWNP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

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require revi	sion. Following is a c	hecklist of s	ome items rela	ited to the	application	on, which should be verified.
	ated on private land, ed? 🦲 Yes 📵 No		ership change	d, if so, ha	s the surf	ace agreement been
	any wells been drille requirements for th				which wo	uld affect the spacing or
	here been any unit on s proposed well?			place that o	could affe	ct the permitting or operation
	there been any chan the proposed location			luding own	nership, o	r rightof- way, which could
• Has t	he approved source o	of water for o	Irilling change	d? 🔵 Ye	s 📵 No	
	there been any phys ge in plans from wha					oute which will require a Yes 📵 No
• Is bo	nding still in place, w	hich covers	this proposed	well? 📵	Yes 🔵	Approved by the <sup>No</sup> Utah Division of Oil, Gas and Mining
Signature:	Danielle Piernot	Date:	11/22/2010		_	11/23/2010
Title:	Regulatory Analyst Re	epresenting:	KERR-MCGEE (	OIL & GAS O	NSHOR₽₽	11/23/2010
						L 00 rul 111

By:\_